

## [FIG.2]

201: BEACON

202: SUPERFRAME

203: SUPERVISED ACCESS PERIOD

5 204: UNSUPERVISED ACCESS PERIOD

205: SUPERVISED ACCESS END

206: UNSUPERVISED ACCESS END

## [FIG.3]

10 301 CONTENTION BASED ACCESS MECHANISM

302 POLLING BASED ACCESS MECHANISM

303 BEAM ACCESS COORDINATOR

304 MEDIUM ACCESS CONTROL (MAC) LAYER

305 PHYSICAL (PHY) LAYER

15 306 MANAGEMENT ENTITY

## [FIG.6]

POWER ON

SCAN

20 ASSOCIATION REQUEST

ASSOCIATION RESPONSE

ASSOCIATION SIGNALING TRANSMISSION (502)

ACQUISITION REQUEST (501)

ACQUISITION RESPONSE (504)

25 RIFS PERIOD (503)

TRAINING SEQUENCE (505)

DATA TRANSFER/NORMAL OPERATION

HIGH ACK LOSS/POLL LOSS/ACTIVY SILENCE TIME?

DATA TRANSFER/NORMAL OPERATION

AP ALTERNATES BETWEEN OMNI-DIRECTIONAL MODE AND  
5 DIRECTIONAL MODE

AP IN SEARCH MODE

AP IN OMNI-DIRECTIONAL MODE  
10

[FIG.7]

SWEEP

BEAM FORMER (PRIMARY)

RECEIVER

15 BEAM FORMER (SECONDARY)

RECEPTION POWER LEVEL MEASUREMENT SECTION

[FIG.8]

START

20 610 DETECT USER TRANSMISSION IN PRIMARY BEAM

SET SECONDARY BEAM TO POSITION OR EXTREME EDGE OF PRIMARY

BEAM 607 MEASURE RECEPTION POWER VALUE

608 DIRECT TRANSIENT CURRENT IN RECEPTION POWER?

COMPLETE SEARCH?

25 STORE BEAM ANGLE

606 INCREMENT BEAM POSITION

609 USER LOCATION IS BISECTOR OF ANGLE BETWEEN EDGES OF

DETECTED BEAM  
STOP

[FIG.11]

5 801 WLAN SCAN AND DETECTION  
802 FIXED BEAM WLAN  
803 M START BEACON DETECTION AND SYNCHRONIZATION  
ASSOCIATION SIGNAL TRANSMISSION  
ASSOCIATION AND GROUP ID ASSIGNED  
10 804 DYNAMIC BEAM WLAN  
DETECT UNSUPERVISED ACCESS MODE  
ASSOCIATION SIGNAL TRANSMISSION  
ASSOCIATE  
806 ACQUISITION SIGNAL TRANSMISSION  
15 GROUP ID ASSIGNMENT  
GROUP ID ASSIGNED

[FIG.12]

904: GROUP "A" PERIOD  
20 905: GROUP "B" PERIOD  
BEAM 1  
BEAM 2  
BEAM 3

25 [FIG.13]

1001: GROUP "A" PERIOD  
1002: DOWNLINK PERIOD

1003: UPLINK PERIOD

GROUP "B" PERIOD

BEAM 1

BEAM 2

5 BEAM 3

[FIG.14]

1001: GROUP "A" PERIOD

1002: DOWNLINK PERIOD

10 1003: UPLINK PERIOD

GROUP "B" PERIOD

BEAM 1

BEAM 2

BEAM 3

15

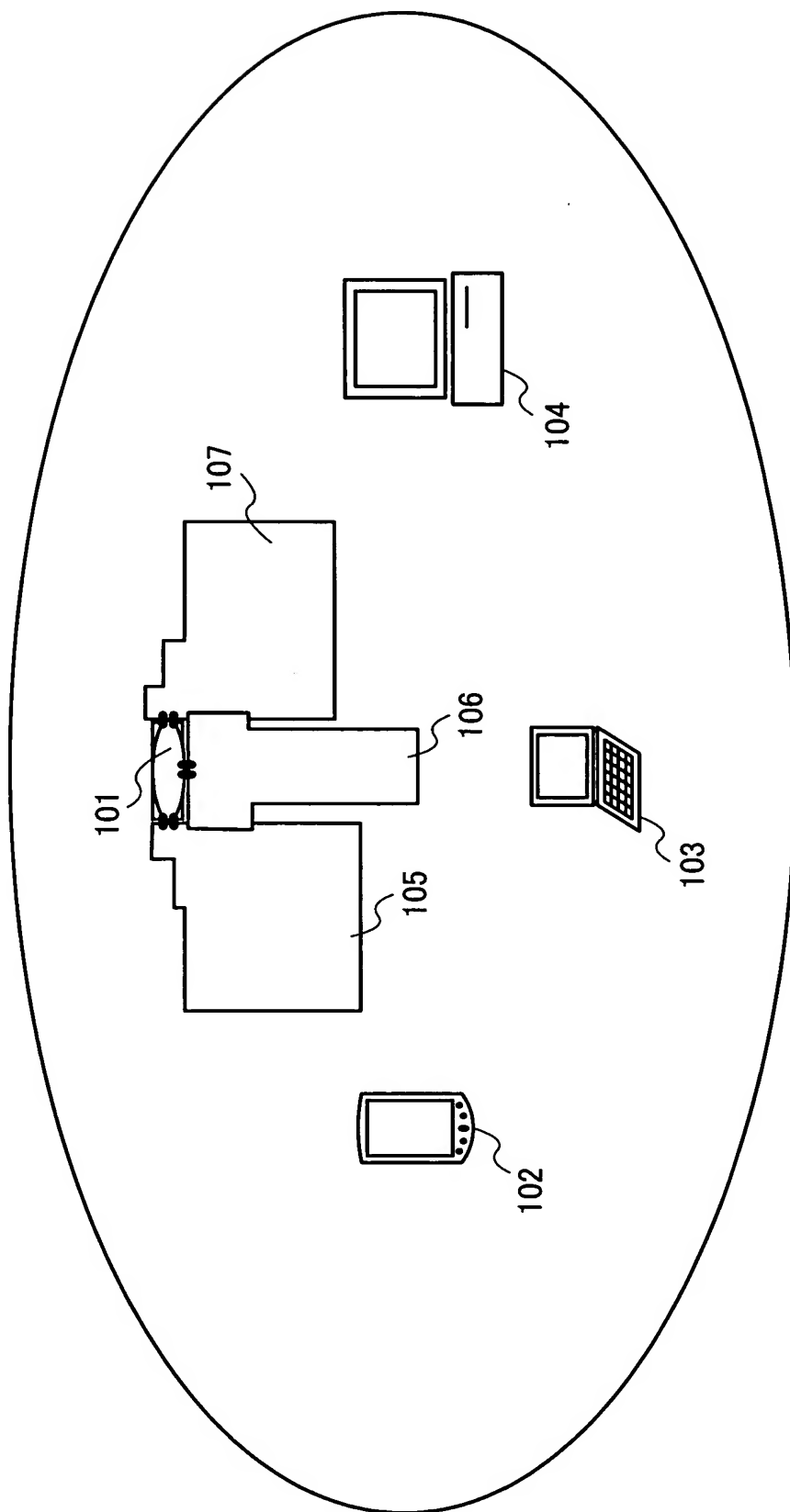


FIG.1

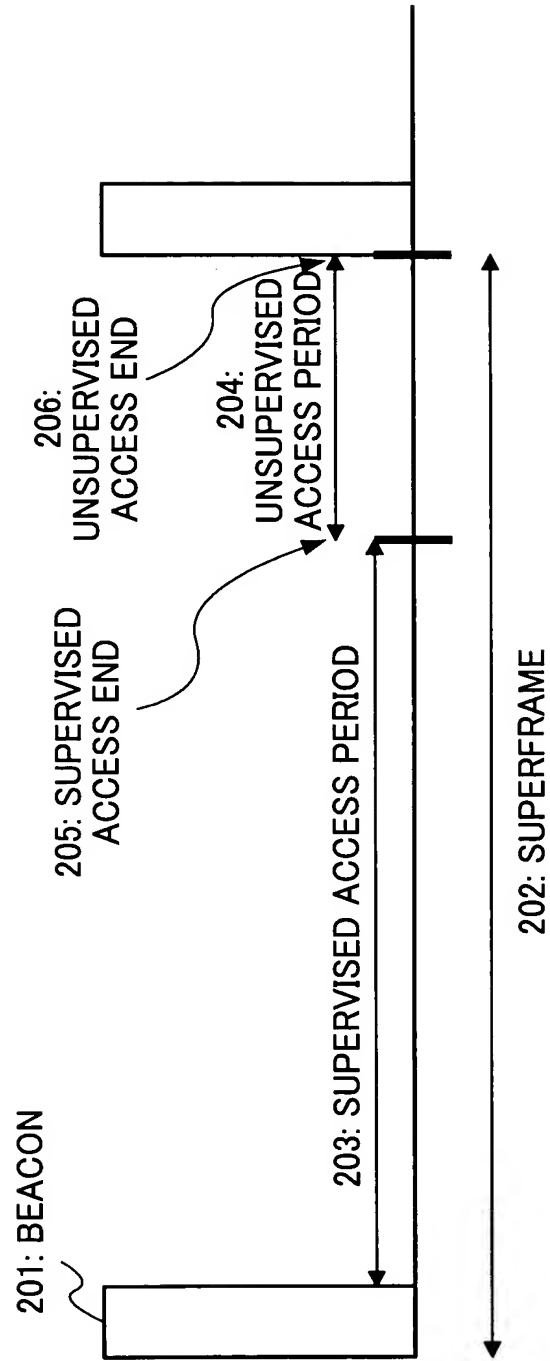


FIG.2

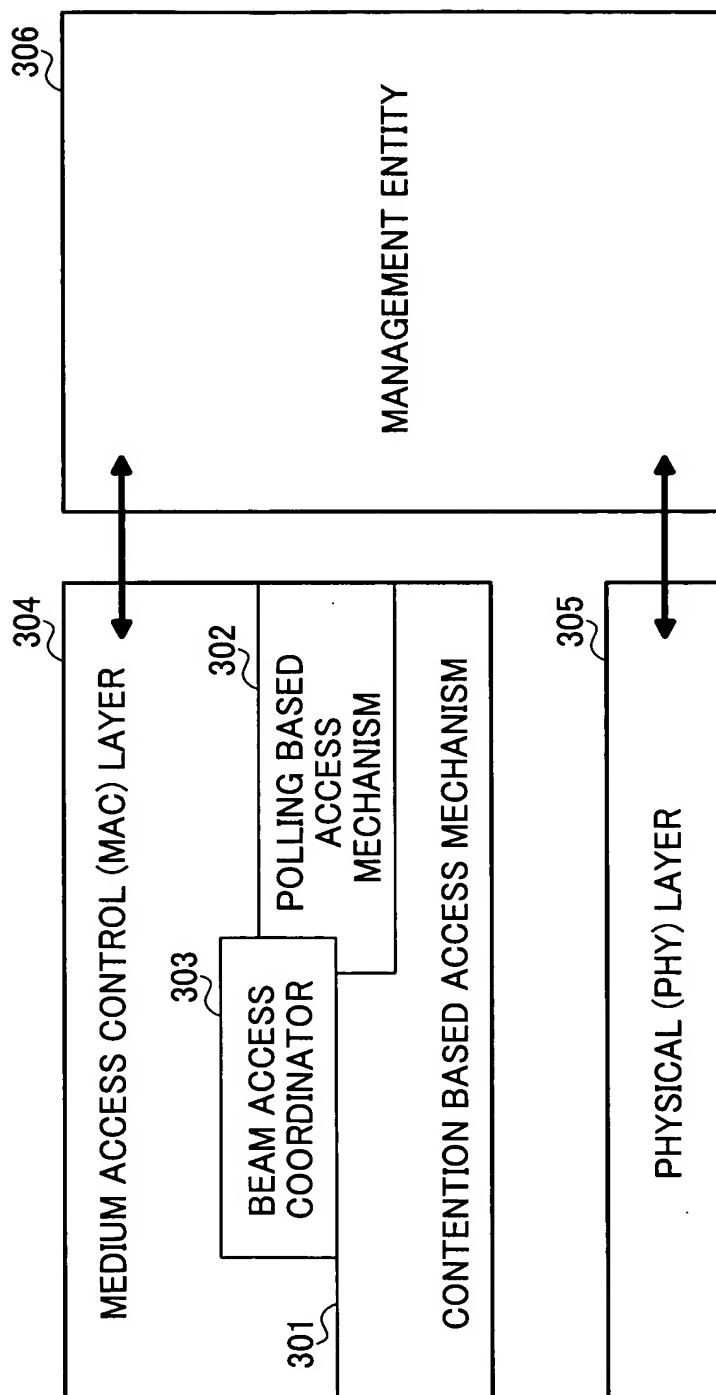


FIG.3

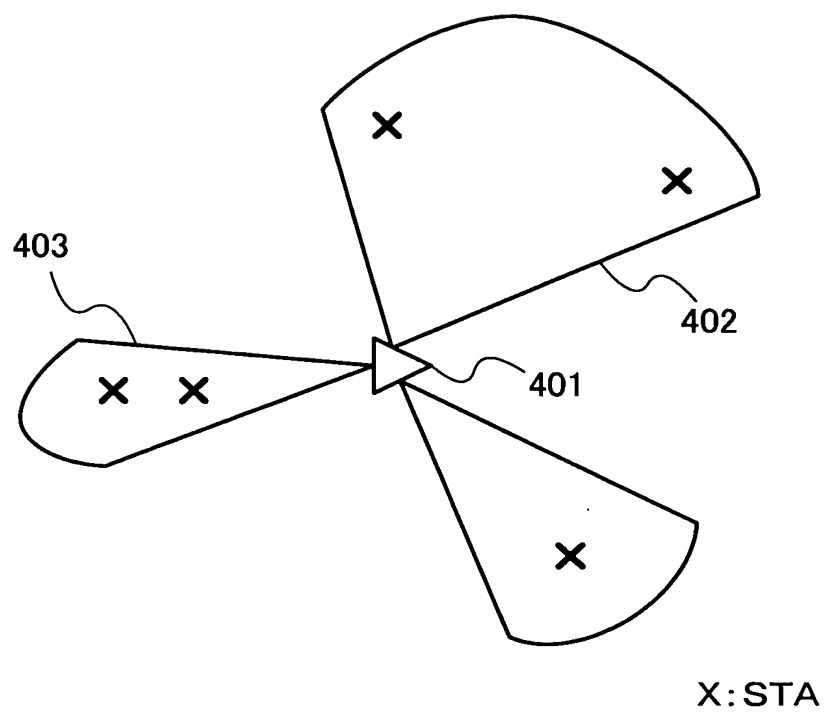


FIG. 4

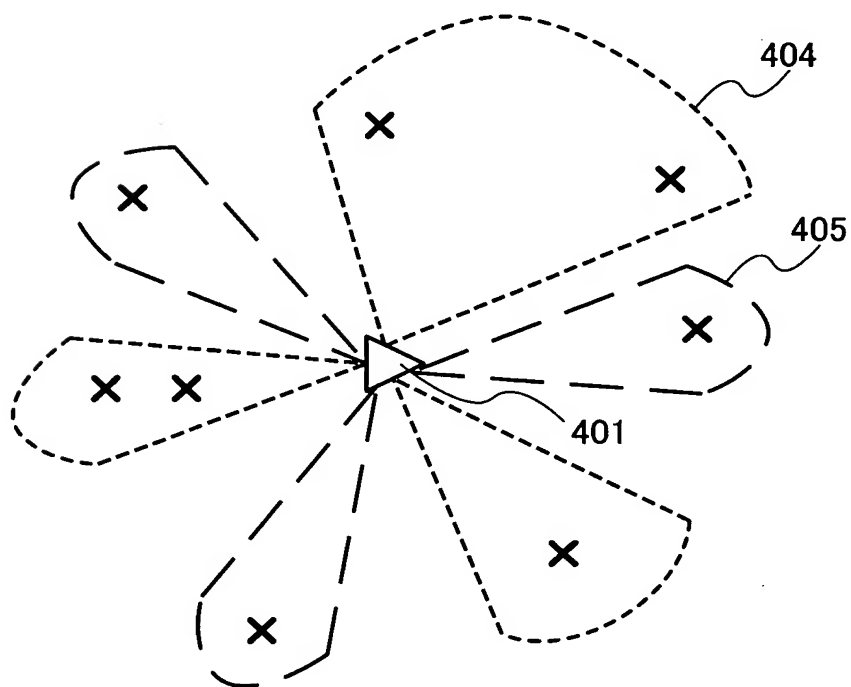


FIG. 5



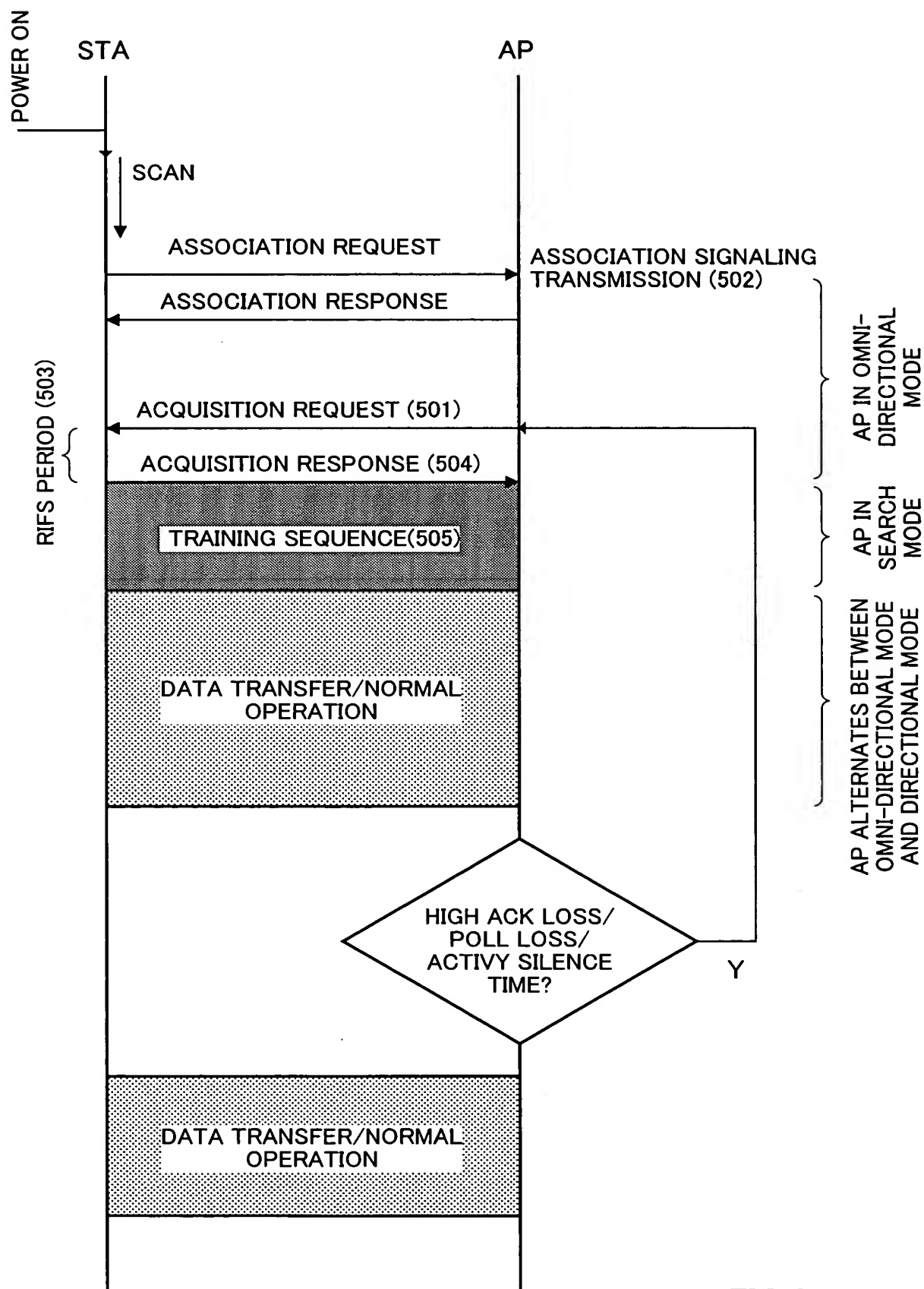


FIG.6

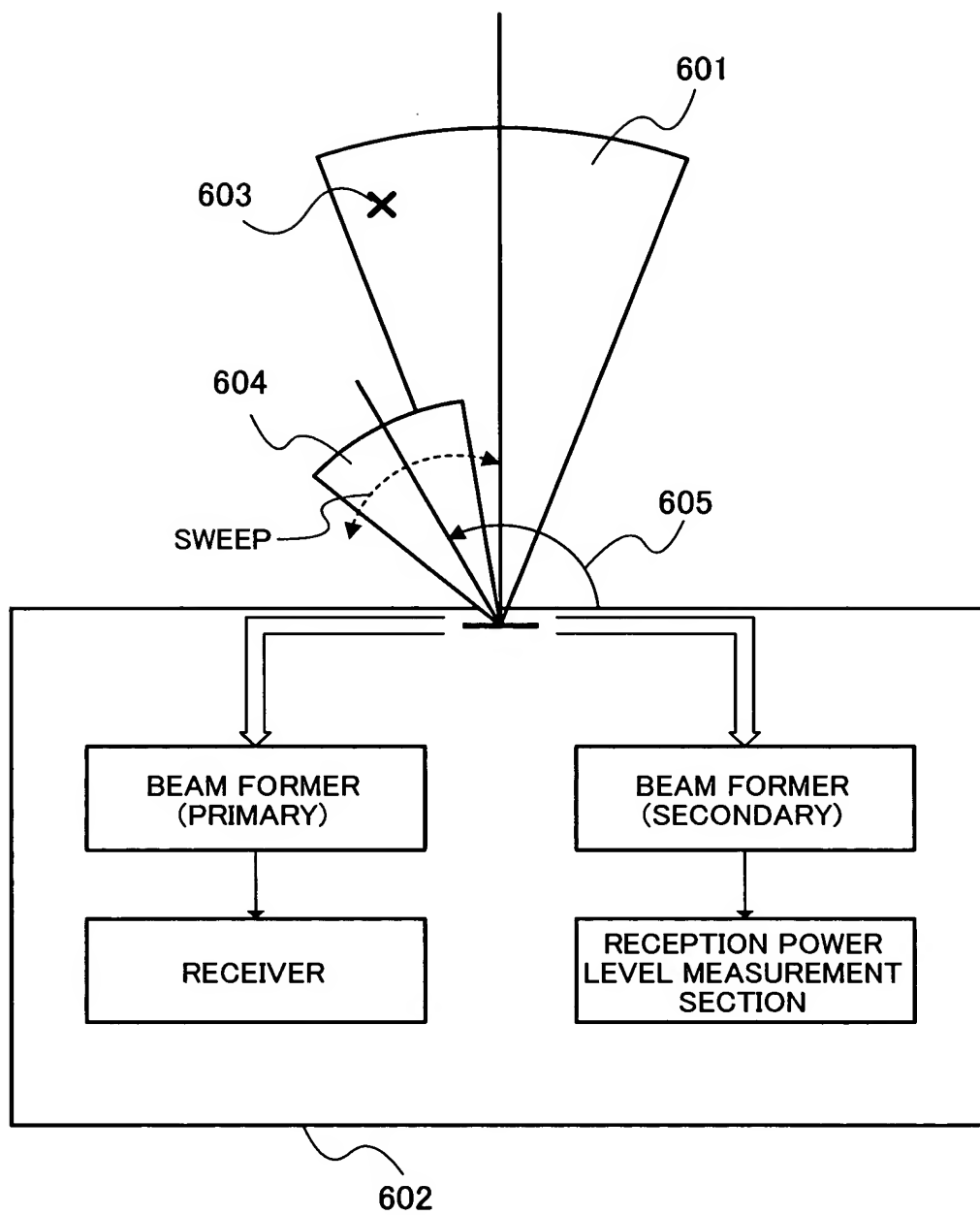


FIG.7

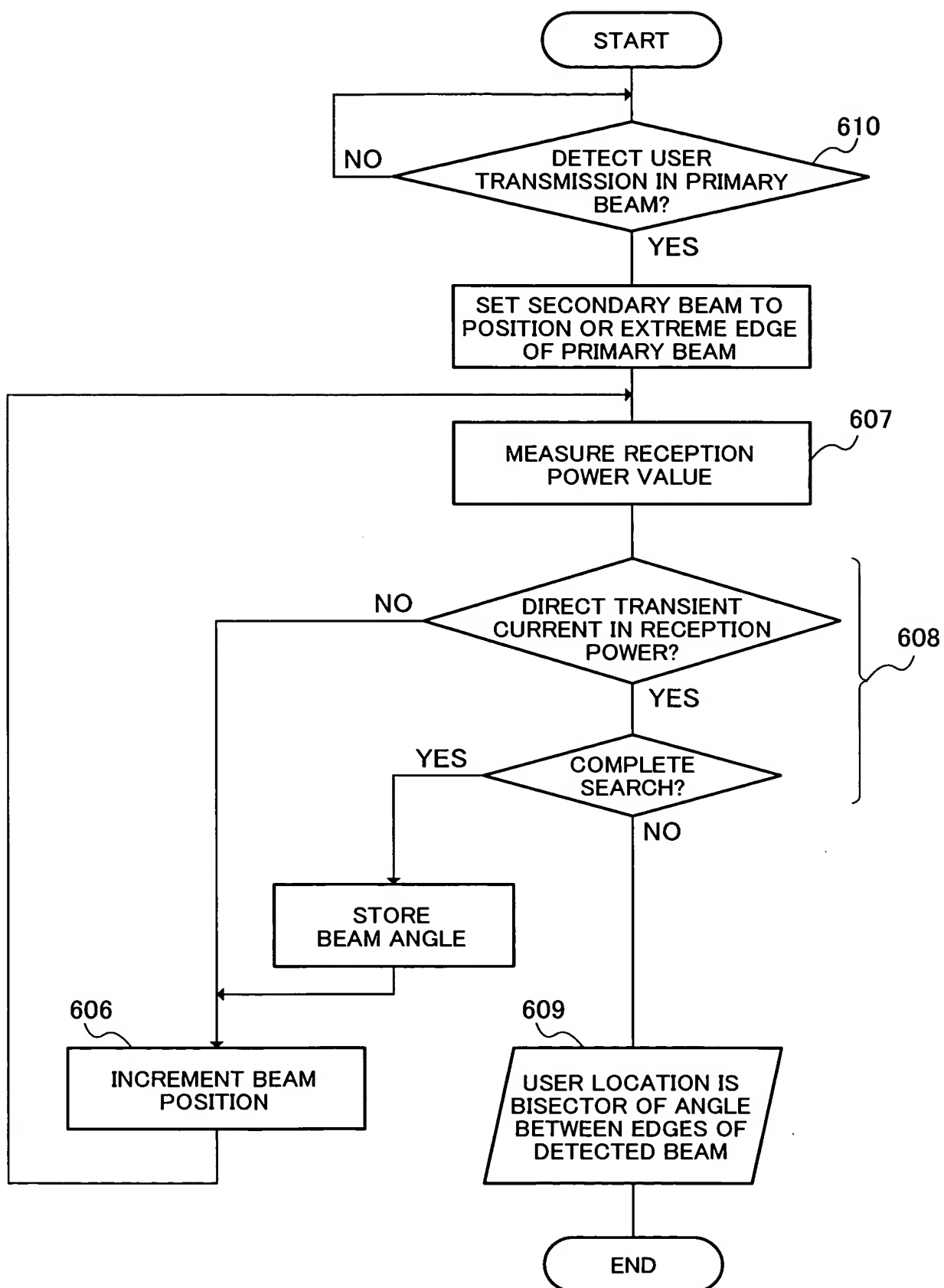


FIG.8

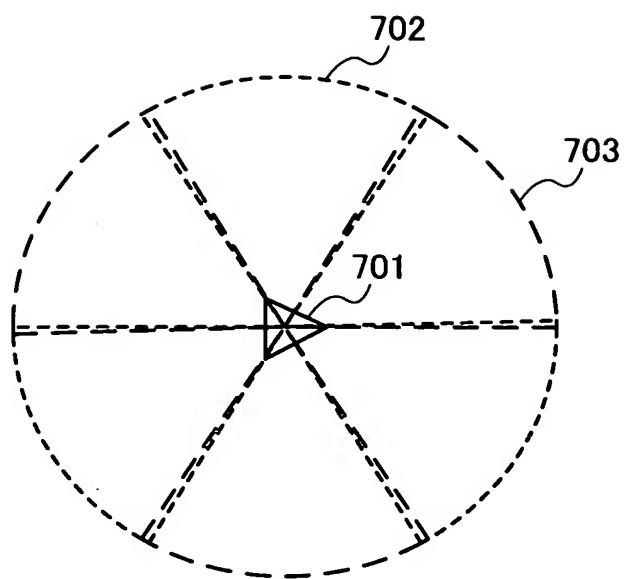


FIG. 9

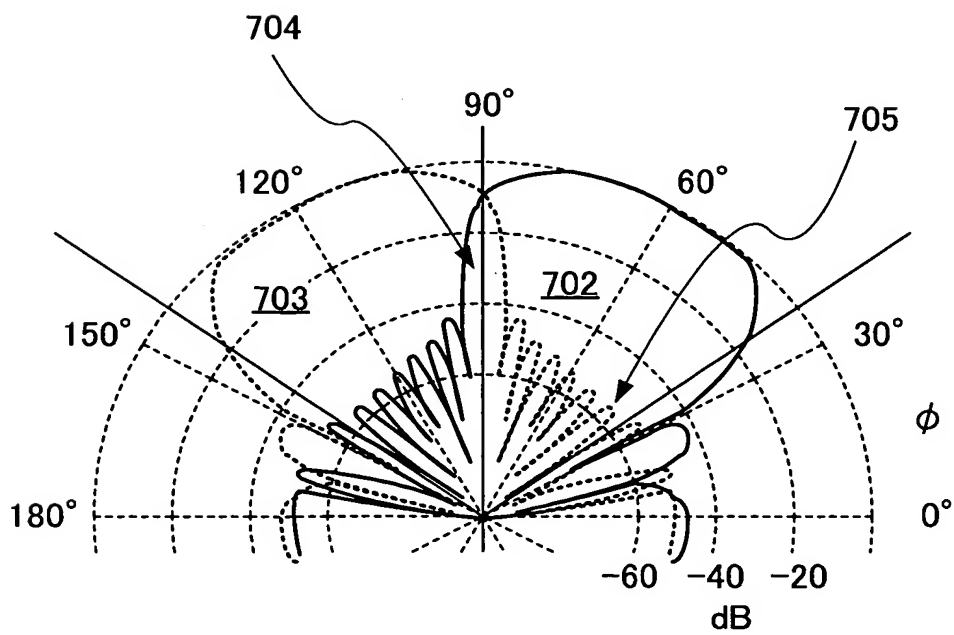


FIG. 10

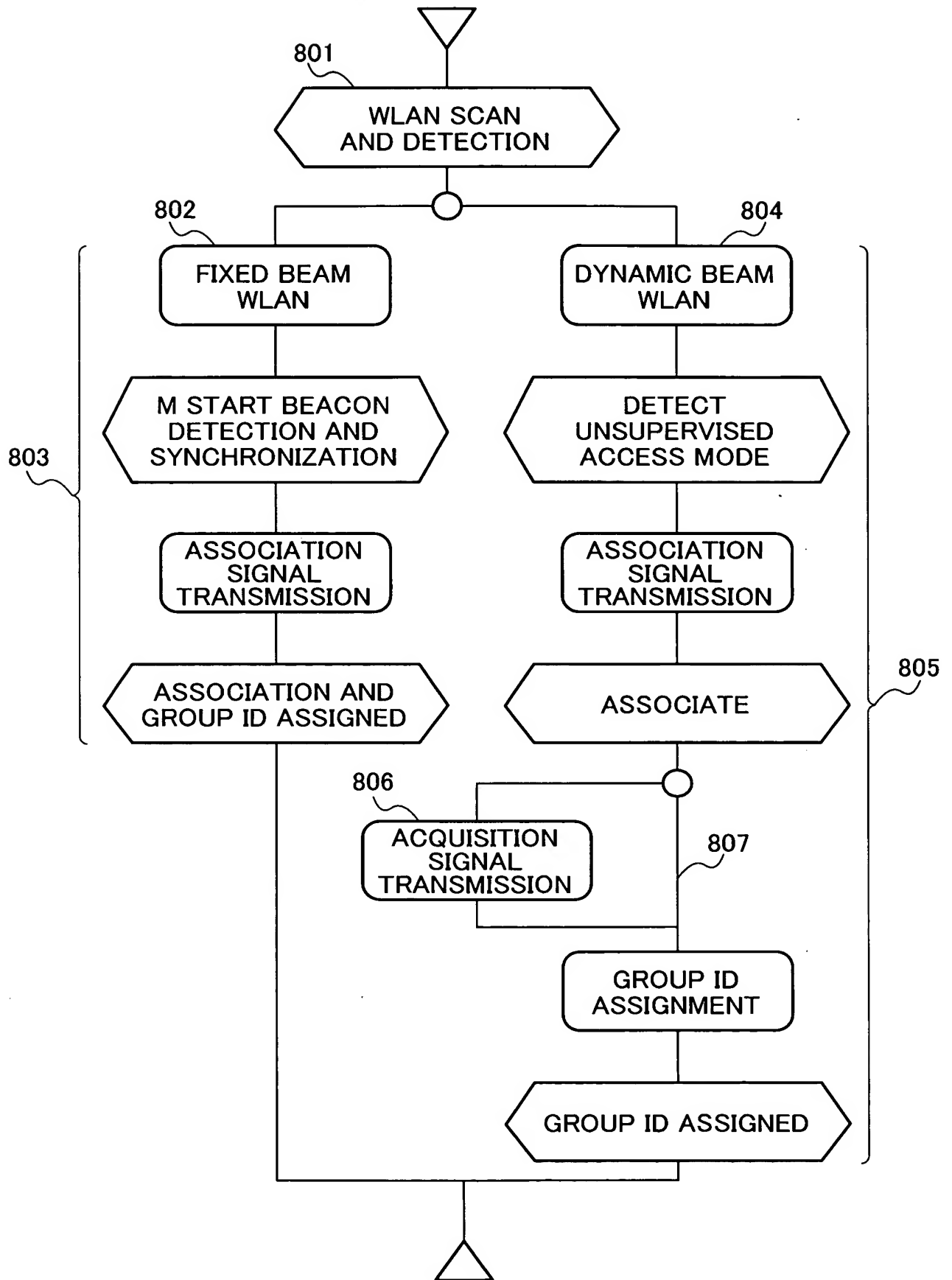


FIG.11

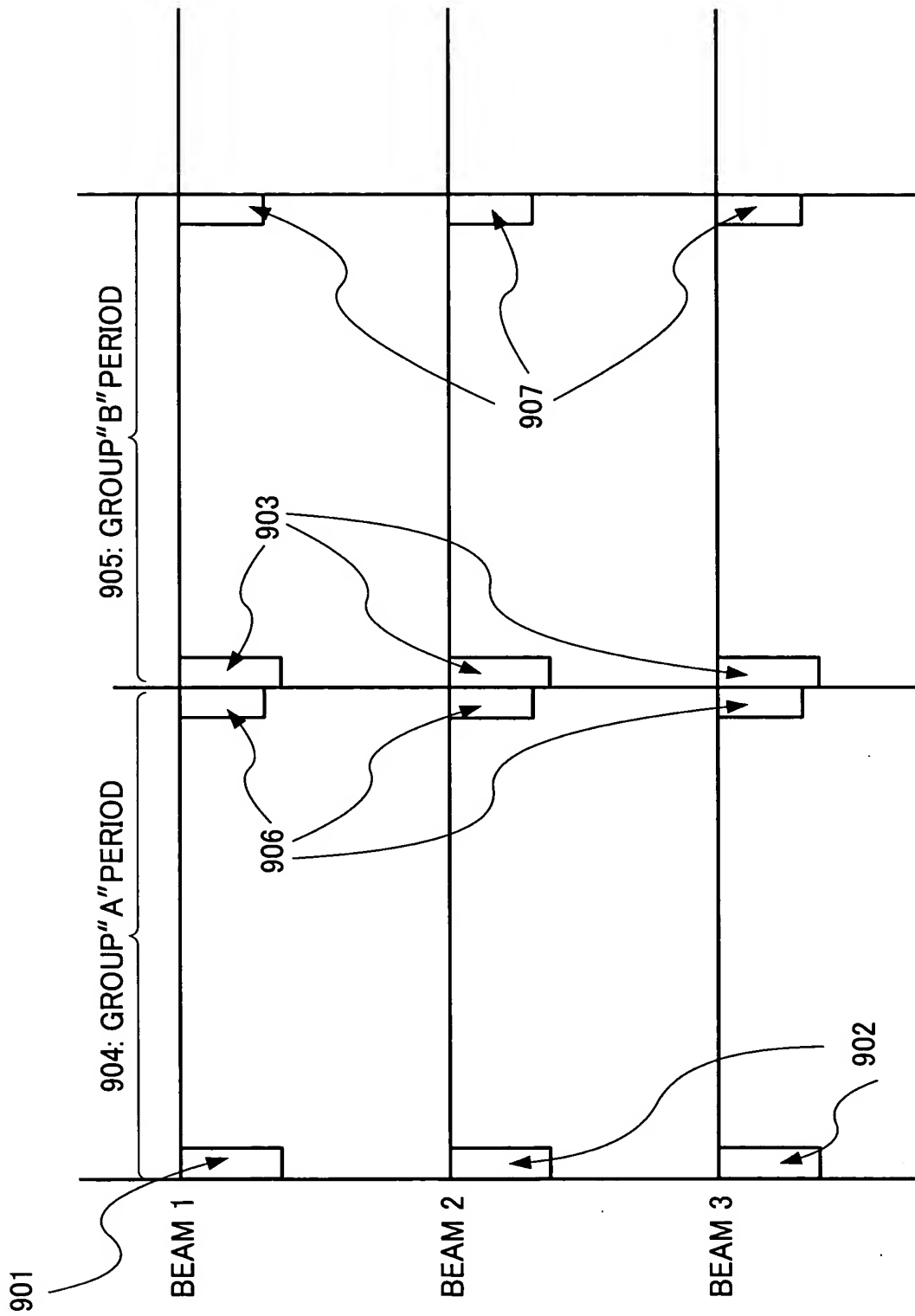


FIG.12

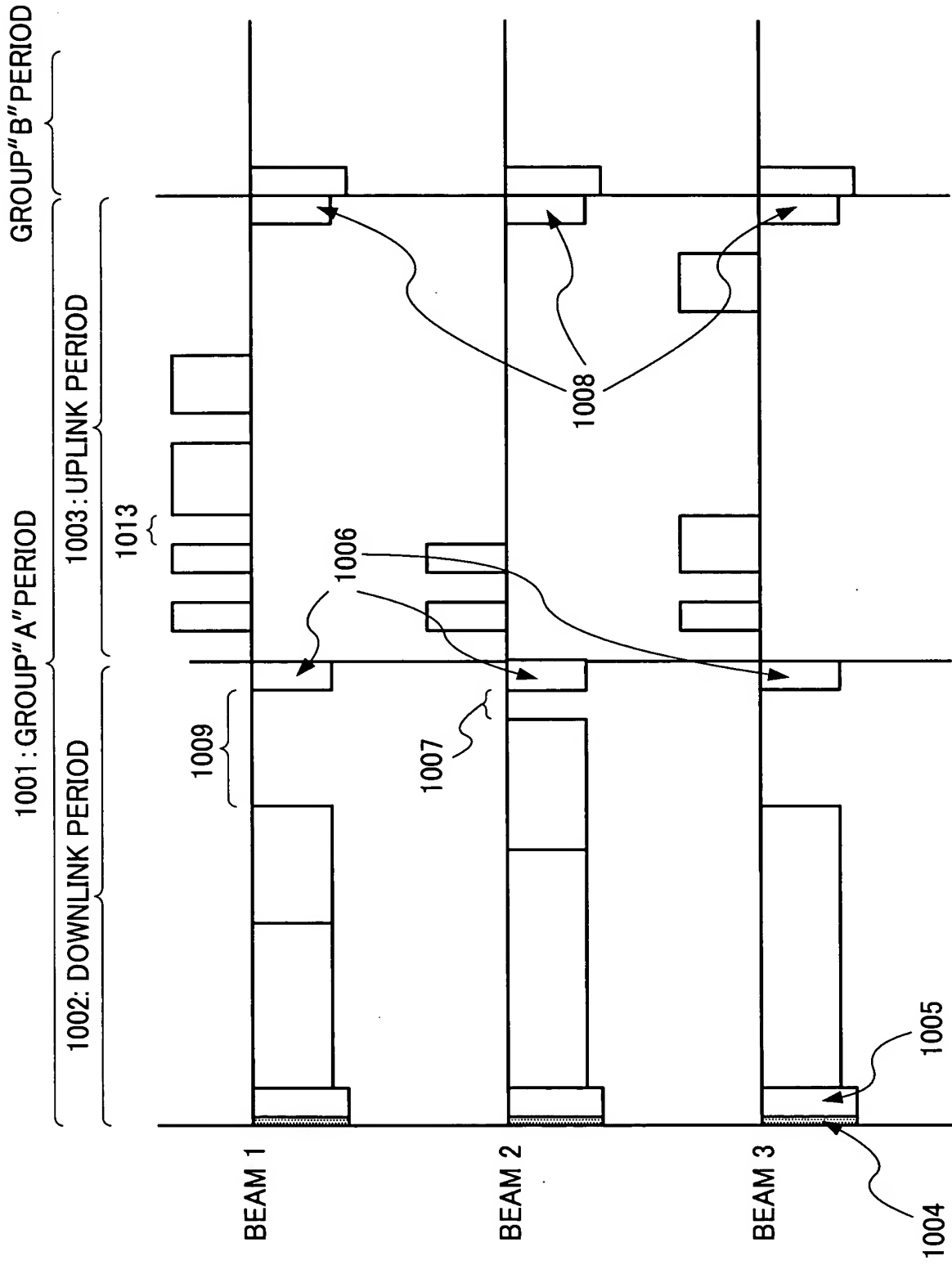


FIG.13

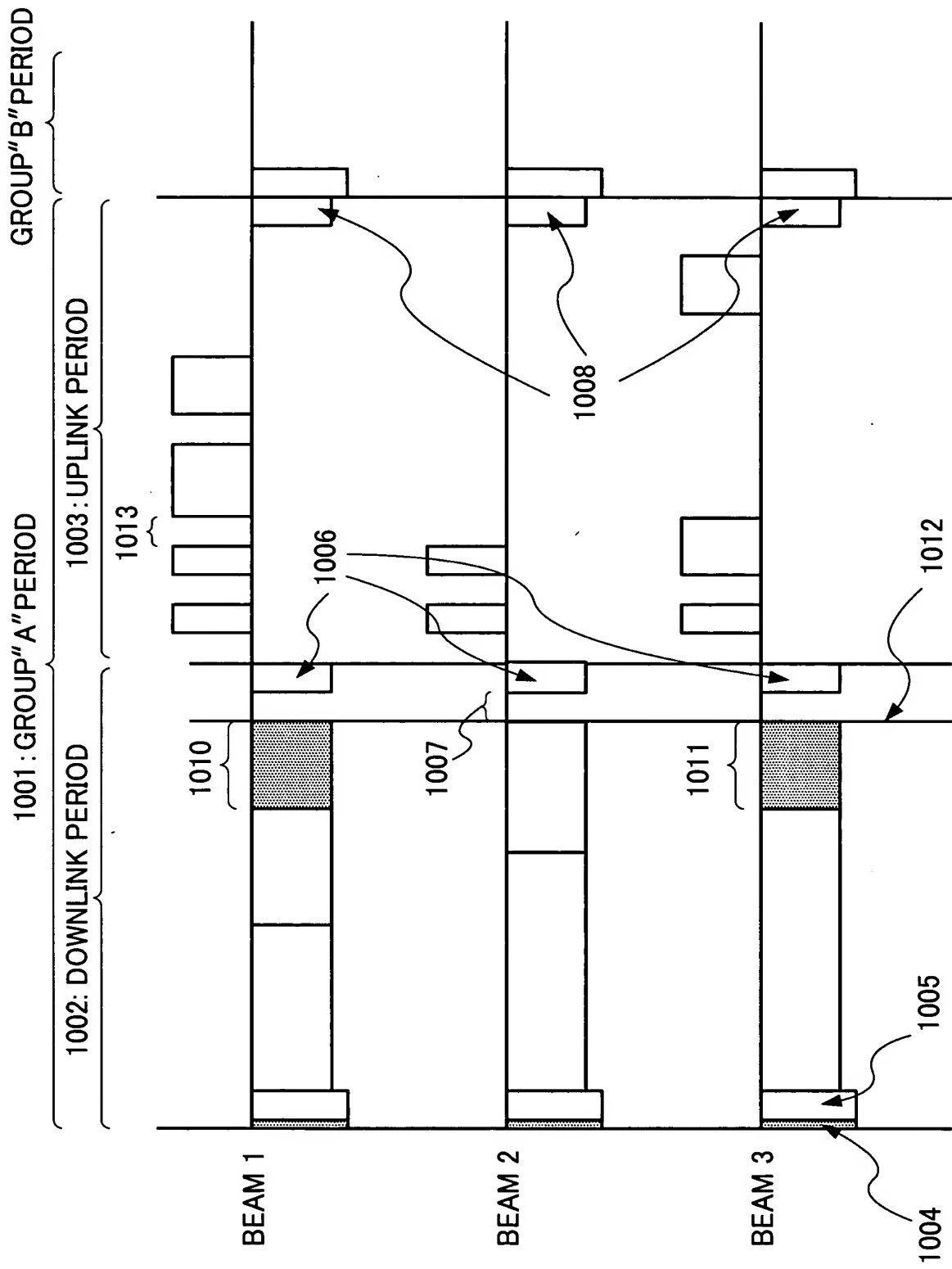


FIG.14